Integrative Biology (HBSc)  
Department of Biological Sciences

The Integrative Biology program allows students to pursue a specialist program built on a broad, multi-perspective approach towards understanding biological complexity. This program provides students with a solid foundation in core biological areas (cellular and organismal biology, ecology and conservation, genes and development). A key advantage to this program is that it allows students to pursue specialization in more than one area at the same time. Many of the biggest issues facing today’s planet require scientists that are capable of bringing different and complementary perspectives to look for solutions, and this program provides the coursework and training to help undergraduates build this broad knowledge base.

Complementary Programs: Not applicable.

Make the most of your time at UTSC!

We want to help you maximize your university experience, so we’ve pulled together information and suggestions to get you started, although there are many more! As you review the chart on the inside pages, note that many of the suggestions need not be restricted to the year they are listed. In fact, activities such as joining a student club, engaging with faculty and seeking opportunities to gain experience should occur in each year of your study.

Check out future career opportunities and skills acquired from completing this program:

Competencies & Skills
- Collect, analyze and interpret data
- Conduct and design experiments; use lab equipment
- Explore how organisms interact with the environment
- Chart the development of complex organisms
- Inspect specimens
- Research and analyze biological questions
- Use statistical tests to predict outcomes
- Write literature reviews and scientific reports

Careers for Graduates
- Pharmaceuticals/Medical Sales
- Conservation Officer
- Lab Technician (Industry/Government)
- Assistant Biologist, Food Inspection
- Water Technologist in Conservation Authorities
- Policy Analyst
- Health Care careers
- Careers in Education/TRCA/Ministry of Natural Resources

Further Education
- Graduate Studies
- Public Health: Epidemiology
- Environmental Science
- Sustainability
- Genetic Counselling
- Medicine
- Dentistry
- Physical Therapy
- Occupational Therapy
- Education
- Clinical Research
- Medical Laboratory Technology
- Environmental Technology

Connect with Alumni at events on CLNx and through Partners in Leadership, 10,000 Coffees, LinkedIn and more!

For more information go to: uoft.me/alumni-services

NEED HELP CHOOSING YOUR PROGRAM?

See uoft.me/choosing
**How to Use This Program Pathway**

Read through each year; investigate what appeals to you here and in other Program Pathways that apply to you. Note that this Pathway is only a suggestion. For the most up to date information, please check the UTSC Calendar.

### Year 1 (0 - 3.5 Credits)

- 1.0 Biology credit: BIOA01H3, BIOA02H3.
- 1.0 Chemistry credit: CHMA10H3, CHMA11H3.
- 1.0 Math credit from: MATA29H3 and MATA39H3, OR MATA30H3 and MATA36H3.
- 0.5 Physics credit from: PHYA10H3, PHYA11H3.
- 0.5 credit from: CASC08H3, CASC20H3, PSCB57H3.

### Year 2 (4 - 8.5 Credits)

- Complete BIOE90H3.
- 0.5 credit in a Biology Core Lab from: BIOE12H3, BIOE23H3, BIOE33H3, BIOE52H3.
- 0.5 credit from: STAB22H3, PSYB07H3.
- Use Degree Explorer to ensure you are on track with your degree.

### Year 3 (9 - 13.5 Credits)

- 2.5 credits of Biology Foundation courses: BIOC15H3, BIOC17H3, BIOC37H3 or BIOC40H3, BIOC54H3, BIOC61H3.
- 1.0 credit of Advanced Courses in Cellular and Organismal Biology.
- Complete BIOC90H3.
- Use Degree Explorer to ensure you are on track with your degree.

### Year 4 or Final Year (14 - 20 Credits)

- 1.0 credit of Advanced Courses in Ecology and Conservation.
- 1.0 credit of Advanced Courses in Genes and Development.
- Complete BIOC90H3 if you have not already.
- 1.0 Credit of D-Level Biology Courses.
- Register your “Intent to Graduate” on ACORN by the deadline.

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**Integrative Biology (HBSc) Specialist Program Pathway**

**Choose Your Courses Wisely**

- **Apply Theory to Practice**
  - Attend BioSA’s BioAID Review Sessions for guidance with writing lab reports.
  - Contact the UTSC Library for in-depth research assistance; writing support is available at the CTL Writing Centre.
  - Attend a BioSci info session on directed research.
  - Attend the UTSC Get Experience Fair in September; check listings on CLNx.
  - Volunteer with organizations to explore your career.

- **Develop Your Academic & Research Skills**
  - Attend the UTSC Get Experience Fair in September; check listings on CLNx.
  - Contact the UTSC Library for in-depth research assistance; writing support is available at the CTL Writing Centre.
  - Join a conference like TEDxUTSC or International Development Conference to develop professional skills.

- **Become an Engaged Citizen (Locally & Globally)**
  - Attend the Professor/Graduate Student Mix & Mingles to meet many of the professors & TAs you will encounter as you progress through your degree.
  - Participate in MIMSA and BioSA events.
  - Consider volunteering with organizations.

- **Plan For Your Future Career**
  - Volunteer with organizations to explore your interest in industries related to your program of study; check listings on CLNx.
  - Attend the UTSC Get Experience Fair in September; register with Scarborough Campus Student Union’s (SCSU) Volunteer Network Program.

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SERVICES AT UTSC THAT SUPPORT YOU:  
To learn about resources and departments that can support you, download the UTSC Student Experience app or visit uoft.me/StARTNow

Diversity & Inclusion  
The University of Toronto Scarborough commits to intentionally foster a welcoming and supportive environment for students, faculty, and staff where diversity is valued, and every member of the community feels a sense of belonging on campus. utsc.utoronto.ca/edo/

Academic Integrity  
The university community supports an environment of academic integrity; these are values that include honesty, trust, fairness, respect and responsibility. Learn about the university's academic rules and how to avoid accidental plagiarism by attending an Academic Integrity Matters (AIM) workshop. academicintegrity.utoronto.ca/

Healthy Campus  
UTSC provides supportive environments, resources and services to empower students to maintain their overall physical and mental health and foster their academic success. uoft.me/healthycampus/

Co-Curricular Record  
The co-curricular record is an official institutional document that recognizes your involvement outside the classroom as a significant part of your U of T experience. clnx.utoronto.ca/ccr

DID YOU KNOW...  
Students will be well trained to take positions in government agencies, consulting firms or NGO’s.

FUTURE STUDENTS  
For admission requirements to UTSC, check out the U of T Scarborough Viewbook or contact:

Admissions & Student Recruitment  
University of Toronto Scarborough  
Room HL104, Main Floor, Highland Hall  
416-287-7529  
admissions@utsc.utoronto.ca

CURRENT STUDENTS  
Departmental Contact  
Jennifer Campbell,  
jac.campbell@utoronto.ca,  
416-287-7404, SW421D

Integrative Biology Librarian  
Sarah Guay,  
sarah.guay@utoronto.ca, 416-287-7497

Academic Advising & Career Centre  
Room AC213 | 416-287-7561

Department of Student Life  
Room SL157 | 416-208-4760

BioSA - Biology Students Association at UTSC, thebiosa.org

Glossary of acronyms:  
AA&CC - Academic Advising & Career Centre  
ASCB - American Society of Cell Biology  
ASM - American Society of Microbiology  
BioSA - Biology Students Association at UTSC  
DSL - Department of Student Life  
ESA - The Ecological Society of America  
ISC - International Student Centre  
MIMSA - Molecular Biology & Immunology Students Association  
SICB - Society for Integrative and Comparative Biology  
TRCA - Toronto Regional Conservation Authority

DISCLAIMER: Please refer to the calendar for the most current and accurate information on programs and degrees: utsc.calendar.utoronto.ca